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  - BRS:
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  - L1: (182905) "455"/$.ccls. or "340"/$.ccls.
  - L2: (224) 1 and (detect$3 near5 "frequency channel")
  - L3: (1) 2 and "complex polyphase filter"
  - L4: (1) 2 and "complex conversion"
  - L5: (2) 1 and "complex polyphase filter"
  - L6: (533) detect$3 near5 "frequency channel"
  - L7: (1) 6 and "complex conversion"
  - L8: (1) 6 and "complex polyphase filter"
  - L9: (3) 6 and "polyphase filter"
  - L10: (1) 9 and (IF or "intermediate frequency")
  - L11: (1) 6 and (interchang$3 near8 component near8 "complex signal")
  - L12: (2907) 1 and "frequency conversion"
  - L13: (47) 12 and (complex near3 conversion)
  - L14: (43) 13 and (IF or "intermediate frequency")
  - L15: (1) 14 and (interchang$3 near8 component near8 "complex signal")
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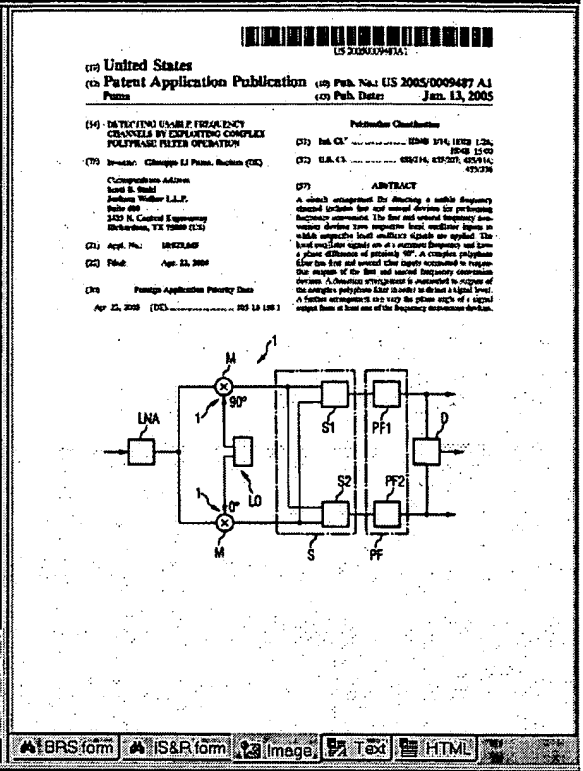

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	U	1	Document ID	Issue Date	Pages	Title	Current OR	Current	Ref	Inventor
1	☐	☐	US 20050009487 A1	20050113	8	Detecting usable frequency channels by exploiting comple	455/214	455/207; 455/314;		Puma, Giuseppe Li

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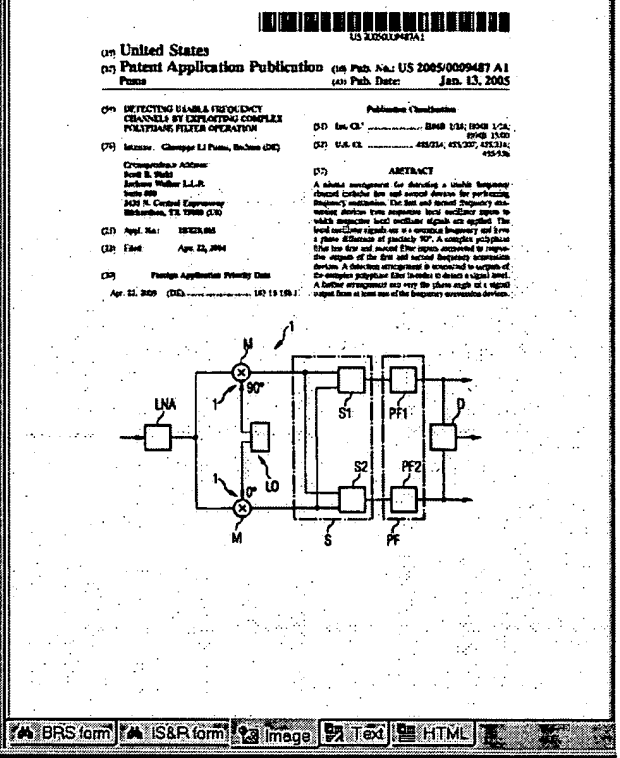

(19) United States
(12) Patent Application Publication (10) Pub. No.: US 2005/0009487 A1
Puma (43) Pub. Date: Jan. 13, 2005

(54) DETECTING USABLE FREQUENCY CHANNELS BY EXPLOITING COMPLEX POLYPHASE FILTER OPERATION

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Publication Classification
(51) Int. Cl.[7] H04B 1/16; H04B 1/26; H04B 15/00
(52) U.S. Cl. 455/214; 455/207; 455/314; 455/313

(57) ABSTRACT

A circuit arrangement for detecting a usable frequency channel includes first and second devices for performing frequency conversion. The first and second frequency conversion devices form respective local oscillator inputs to which respective local oscillator signals are applied. The local oscillator signals are at a common frequency and have a phase difference of practically 90°. A complex polyphase filter has first and second filter inputs connected to respective outputs of the first and second frequency conversion devices. A detection arrangement is connected to outputs of the complex polyphase filter branches to detect a signal level. A further arrangement may vary the phase angle of a signal output from at least one of the frequency conversion devices.

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  - L9: (3) 6 and "polyphase filter"
  - L10: (1) 9 and (IF or "intermediate frequency")
- Failed
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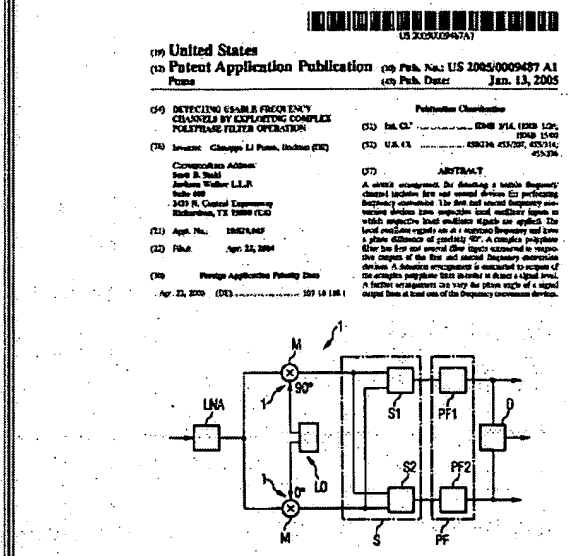

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DETECTING USABLE FREQUENCY CHANNELS BY EXPLOITING COMPLEX POLYPHASE FILTER OPERATION

ABSTRACT

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